

# An Acute Cholecystitis Due To a Gallbladder Metastasis Originating From a Gastric Cancer: A Case Report

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## 1. Introduction

Gallbladder metastases from other cancers are extremely rare and related to a very poor prognosis [1]. Melanoma and renal cell cancer are reported to be most frequent cause of gallbladder metastasis [2]. For gastric cancer, only few cases of gallbladder as a metastatic site are reported not permitting to estimate the frequency of this entity.

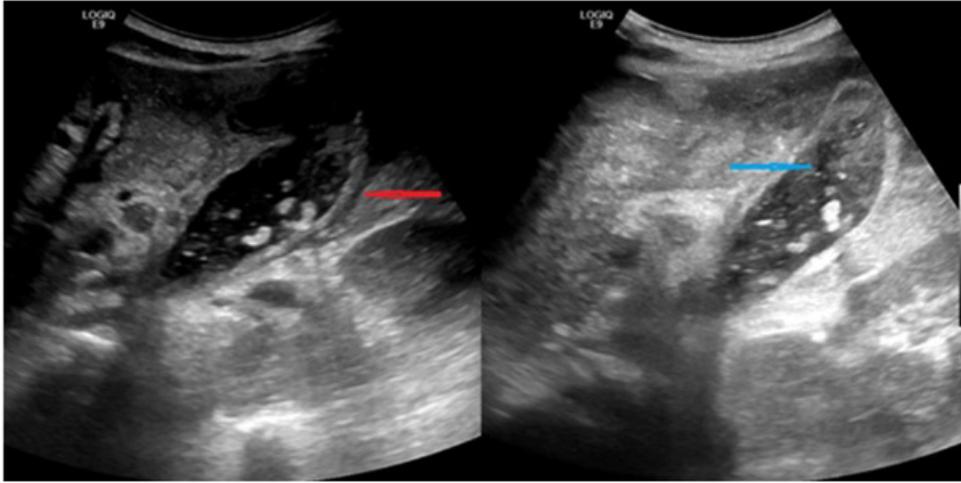
We report a new case of gallbladder metastasis secondary to gastric cancer presented to the emergency with an acute cholecystitis.

## 2. Case Report

A 39-year-old patient was admitted to our surgery department with a history of epigastric discomfort, nausea and anorexia. He had no significant past medical history. The physical examination was normal. Initial laboratory results were within normal limits, CA 19-9 and CEA were negative. Esophagogastrosocopy revealed an ulcerative mass in the gastric fundus on the measuring 5cm of diameter. Histopathological examination concluded to a differentiated gastric adenocarcinoma. Chest and abdominopelvic computed tomography revealed no distant metastasis. Perioperative chemotherapy was indicated, and a total gastrectomy with D2 regional lymph node dissection was performed. Postoperative pathology examination confirmed the presence of a moderate-differentiated

gastric adenocarcinoma measuring 5.5 cm in diameter, infiltrating the serosa of the stomach and 22 of the 41 resected lymph nodes contained metastasis. The patient was staged as pT3N3M0 and we continued the perioperative chemotherapy. He remained in remission during a follow-up of 6 months. Eight month after the surgery, he was referred to our hospital with abdominal pain, and vomiting and five evolving from four days. The physical examination, revealed a temperature a 39.2°C and a right upper quadrant guarding. There was no jaundice.

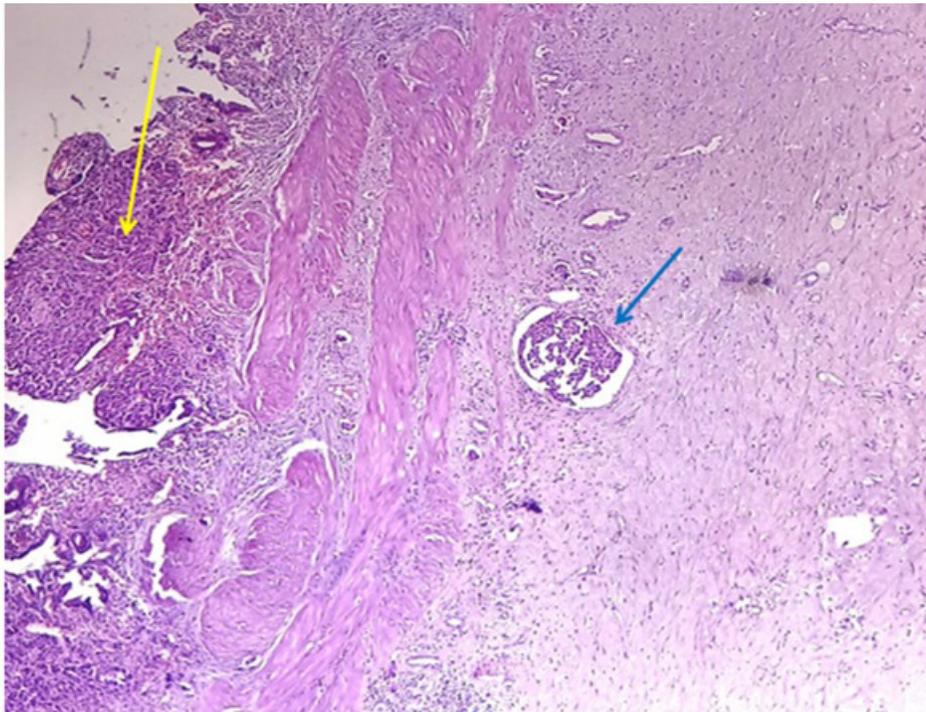
The results of laboratory tests revealed a WBC at 18.900/mm<sup>3</sup>, C-reactive protein at 183mg/L the rest of laboratory values were within normal. Abdominal ultrasonography CT-scan revealed asymmetrical wall thickening of the gallbladder with visible stone in the gallbladder (Figure 1 and 2). The patient was first treated with intravenous fluids and antibiotics for presumed cholecystitis then, cholecystectomy was carried out. Histopathological examination of the gallbladder specimen showed clusters of carcinomatous proliferation and ulcerating the biliary epithelium (Figure 3). After the gallbladder specimen was determined to be comparable histomorphologically with gastric cancer, the diagnosis of gallbladder metastasis originating from a gastric adenocarcinoma was made. The patient is now under chemotherapy.



**Figure 1:** ultrasound imaging showing thickening of the gallbladder wall (red arrow) with a heterogeneous content (blue arrow).



**Figure 2:** TC scan showing a thickening in the gallbladder wall (red arrow)



**Figure 3:** Microscopic examination; Clusters of carcinomatous proliferation (blue arrow) and ulcerating the biliary epithelium (yellow arrows) (hematoxylin-eosin x200).

### 3. Discussion

Gallbladder is an unusual location for metastasis. According to large autopsy, series it is present in 5.8% of patients [3] and 30 to 60% of those metastasis are related to malignant melanoma [4]. Otherwise renal cell, breast, lung, pancreatic, hepatocellular and colorectal cancers were documented in the literature in the form of single case reports [2, 3].

Concerning gallbladder metastases originating from a gastric cancer, they were reported for the first time by Yoon and al. in 2009. By analyzing 417 cases with gallbladder malignancies, the authors found only eight cases that were due to a gastric cancer [5].

Patients with gallbladder metastasis can be asymptomatic or present with obstructive jaundice in case of extension to the common bile duct [2]. They can also present with upper abdominal pain mimicking symptomatic cholelithiasis or an acute a calculous cholecystitis [6] due to the involvement of hepato-duodenal ligament and the Calot's triangle in the metastasis [3]. That is why the diagnosis must be suspected within patient with a past medical history of cancer consulting for an acute a calculous cholecystitis. Furthermore, there are no specific signs in all different imaging. However, the PET/CT can detect intense heterogeneous uptake foci in the gallbladder [2].

There are limited data on the treatment options for gallbladder metastasis [2], but in case of acute cholecystitis, most authors opt for cholecystectomy, which relieve the symptoms of the patient, prevents the complications of the gallbladder's inflammation and confirm the diagnosis [3].

The prognosis is usually poor, for example according to Yoon and al. the median survival after the diagnosis was 8.7 months even after R0 resection and chemotherapy [5].

### 4. Conclusion

Certainly, gallbladder metastases are exceptional but this diagnosis must be considered while treating a cholecystitis especially if it is a calculous and within a patient with a history of neoplasm.

### References

1. Dematos P, Anthony PP. Tumors of the gallbladder and extrahepatic bile ducts: Secondary tumors and melanoma. In: Hamilton SR, Aaltonen LA, eds. Pathology and genetics of tumors of the digestive system. World Health Organization classification of the tumors. Lyon: IARC Press. 2000; 217.
2. Bilici A, Seker M, Ustaalioglu BBO, Keser SH, Cinaral F, Gumus M. Gallbladder metastasis secondary to gastric cancer as a first site of recurrence presented with acute cholecystitis: Case report and literature review. *Turk J Gastroenterol.* 2012; 23: 764-8.
3. Sugita H, Sato R, Araki T, Okuda T, Miyanaga T, Doden K. Acute acalculous cholecystitis caused by gallbladder metastasis due to the peritoneal dissemination of gastric cancer: A case report. *International Journal of Surgery Case Reports.* 2021; 81: 105764.
4. Bleeker D, Abraham S, Furth EE, Kochman ML. Melanoma in the gastrointestinal track. *Am J Gastroenterol.* 1999; 94: 3427-33.
5. Yoon WJ, Yoon YB, Kim YJ, Ryu JK, Kim YT. Metastasis to the gallbladder: a single-center experience of 20 cases in South Korea. *World Journal of Gastroenterology: WJG.* 2009; 15: 4806-9.

6. Doval DC, Bhatia K, Pavithran K, Sharma JB, Vaid AK, Hazarika D. Breast carcinoma with metastasis to the gallbladder: an unusual case report with a short review of literature. *Hepatobiliary & pancreatic diseases international: HBPD INT.* 2006; 5: 305-7.